

Mills Excavation Inc.)	Departmental
Knox County)	Findings of Fact and Order
Vinalhaven, Maine)	Air Emission License
A-820-71-B-A)	Amendment #1

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Mills Excavation Inc. (Mills) has applied to amend their air emission license (A-820-71-A-N), permitting the operation of a crushed stone and gravel facility located on Vinalhaven.

They propose the replacement of their Cone 2 Rock Crusher, and the replacement of the corresponding Diesel Generator. They have also requested to change the name on the license from Mills Pit to their current name of Mills Excavation Inc. The new equipment is outlined below.

B. Emission Equipment

Rock Crusher:

<u>Designation</u>	<u>Process Rate</u> (tons/hour)	<u>Control Device</u>	<u>Date of</u> <u>Manufacture</u>
Cone 2	200	Spray Nozzle	2003

Diesel Units:

<u>Source ID</u>	<u>Max. Capacity</u>	<u>Max. Firing Rate</u>	<u>Power Output</u>
Diesel Generator #2	3.56 MMBtu/hr	26.0 gal/hr	365 kW

C. Application Classification

Mills is classified as an existing source that is applying to modify their air emission license. The Department has determined that this is a minor modification and the application has been processed through Chapter 115 of the Department's regulations.

II. BEST PRACTICAL TREATMENT

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Department's regulations. BPT for new units consists of meeting Best Available Control Technology (BACT).

A. Rock Crusher

The Cone 2 rock crusher has a rated capacity of 200 tons/hr and was manufactured in 2003. The rock crusher is therefore subject to EPA New Source Performance Standards (NSPS) Subpart OOO for Nonmetallic Mineral Processing Plants manufactured after August 31, 1983, with capacities greater than 150 tons/hr for portable plants and greater than 25 tons/hr for non-portable plants.

The regulated pollutant from the rock crusher is particulate emissions. To meet the requirements of BACT for control of particulate matter (PM) emissions from the rock crusher, Mills shall maintain water sprays and operate them as needed. Visible emissions from the rock crusher shall be limited to no greater than 10% opacity on a 6 minute block average basis.

B. Diesel Generator #2

The diesel generator is utilized primarily to provide electrical power to the Cone 2 rock crusher. BACT for diesel generator #2 consists of the following:

1. Diesel generator #2 is subject to the PM emission limits in MEDEP Chapter 103.
2. SO₂ emissions are derived from a mass balance on the use of diesel fuel with a sulfur content of 0.05%.
3. NO_x, CO, VOC emissions rates are based on AP-42 data dated 10/96.
4. Visible emissions from emergency generator #2 shall not exceed an opacity of 20 percent on a six (6) minute block average basis, except for no more than two (2), six (6) minute block averages in a 3-hour period.

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C. Facility Emissions and Fuel Use Caps

Total fuel use in both diesel units shall not exceed 20,000 gal/year of diesel fuel, based on a 12 month rolling total, with a maximum sulfur content of 0.05% by weight.

Based on the maximum firing rates of the two diesel generators, the yearly breakdown of fuel usage shall be:

Diesel generator #1 – 5920 gal

Diesel generator #2 – 14080 gal

These are not licensed limits, but are used to calculate the estimated yearly emissions from the two generators.

Total Allowable Annual Emissions for the Facility

(used to calculate the annual license fee)

Tons/year

Emission equipment	PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Diesel Generator #1	0.13	0.13	0.02	1.75	0.39	0.15
Diesel Generator #2	0.12	0.12	0.05	4.25	0.92	0.34
Totals	0.25	0.25	0.07	6.00	1.31	0.49

III. AMBIENT AIR QUALITY ANALYSIS

According to Chapter 115 of the Department's regulations, the level of air quality analyses required for a minor source shall be determined on a case-by-case basis. Based on the information available in the file, and the similarity to existing sources, Maine Ambient Air Quality Standards (MAAQS) will not be violated by this source.

ORDER

Based on the above Findings and subject to conditions listed below the Department concludes that the emissions from this source:

will receive Best Practical Treatment,
will not violate applicable emission standards,
will not violate applicable ambient air quality standards in
conjunction with emissions from other sources.

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The Department hereby grants air emission license amendment A-820-71-B-A, subject to the conditions found in air emission license A-820-71-A-N, and the following conditions:

NEW CONDITIONS

(1) Cone 2 Rock Crusher

- a. Mills shall operate and maintain spray nozzles for particulate control on the Cone 2 rock crusher. Visible emissions from the crusher shall be limited to no greater than 10% opacity on a 6 minute block average basis. [MEDEP Chapter 115, Chapter 101, BACT]
- b. Mills shall maintain a log detailing the maintenance on the water spray nozzles. The maintenance log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BACT]
- c. Mills shall maintain a log detailing and quantifying the hours of operation on a daily basis for the Cone 2 rock crusher. The operation log shall be kept on-site at the rock crushing location. [MEDEP Chapter 115, BACT]

(2) New Source Performance Standards for rock crushers [MEDEP Chapter 115, 40 CFR Part 60 Subpart OOO, BACT]

- a. The new Cone 2 rock crusher is subject to 40 CFR Part 60 Subparts A and OOO and Mills shall comply with the notification and record keeping requirements of 40 CFR Part 60.676 and Part 60.7, except for Section (a)(2) of 60.7 per Subpart OOO, §60.676(h).
- b. Mills shall have an initial performance test performed on the rock crushing operation per the applicable sections of 40 CFR Part 60, Subpart OOO, §60.675. This consists of a certified Method 9 observation. The performance test shall be completed within 60 days after achieving the maximum production rate at which the unit will be operated, but no later than 180 days after initial startup of the unit. Mills shall submit a test notice to the regional inspector at least 30 days prior to the performance test. Any rescheduled test requires a 7 day notice to the regional inspector.

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(3) Diesel Generator #2

- a. Fuel use records and receipts, including sulfur content documentation, for diesel generator #2 shall be maintained for at least six years and available to the Department upon request. [MEDEP Chapter 115, BACT]
- b. Mills shall not exceed the total use of 20,000 gal/year of diesel fuel (12 month rolling total), with a sulfur content not to exceed 0.05% by weight. Emissions from diesel generator #2 shall be limited to the following: [MEDEP Chapter 115, BACT]

<u>Pollutant</u>	<u>lb/MMBtu</u>	<u>lb/hr</u>
PM	0.12	0.43
PM ₁₀	-	0.43
SO ₂	-	0.18
NO _x	-	15.70
CO	-	3.38
VOC	-	1.25

- c. Visible emissions from diesel generator #2 shall not exceed 20% opacity on a 6 minute block average, except for no more than two (2), six (6) minute block averages in a continuous 3 hour period. [MEDEP Chapter 101]
- (4) Mills shall keep a copy of this Order on site, and have the operator(s) be familiar with the terms of this Order. [MEDEP Chapter 115, BACT]

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF , 2004.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAWN R. GALLAGHER, COMMISSIONER

PLEASE NOTE THE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

The term of this order shall be for five (5) years from the signature date above.

Date of initial receipt of application: 3/24/2004

Date of application acceptance: 5/17/2004

Date filed with the Board of Environmental Protection: _____

This order prepared by Jonathan Voisine, Bureau of Air Quality.